CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM





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A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

KEY MESSAGES

As the 2025 Caribbean Heat Season continues to ramp up, prepare for possible heatwaves, though unlikely to match 2023 and 2024 seasons.

Rainfall intensity and shower frequency should rise, resulting in high to extremely high potential for flooding, flash floods, cascading hazards and associated impacts.

An intense first half of the Atlantic Hurricane Season, with a likely number of named storm between three and ten in this period.

Possible frequent episodes of Saharan dust intrusions through August. These tend to produce spells of hot and humid conditions with reduced air quality, all the while stifling intense shower and tropical cyclone activity.

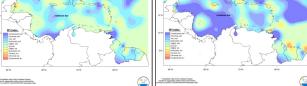
APRIL IN REVIEW

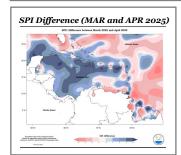
Mixed conditions were experienced throughout the islands of the eastern Caribbean during the month of April. Trinidad was exceptionally wet in the south to slightly dry in the north; Tobago normal to very wet; Grenada and Antigua slight to moderately wet; Barbados and Anguilla slightly dry to slightly wet; St Vincent, Saint Lucia and St Kitts moderately dry to normal; Martinique and Dominica predominantly normal to slightly dry; Guadeloupe predominantly normal to slightly wet; St Maarten moderately wet to normal and St Thomas extreme to exceptionally wet. In the Guianas, conditions ranged from exceptionally wet in southern and northern Guyana to moderately dry in northwestern Suriname. Aruba and Curacao were normal.

Puerto Rico was mostly normal ranging to moderately wet in the east. Hispaniola ranged from very wet on the northern Haiti/Dominican Republic border to slightly dry in southeastern Dominican Republic and normal in southwestern Haiti. Jamaica was extremely wet in the south ranging to normal in the west and to slightly dry on the eastern coastline. Grand Cayman was predominantly very wet ranging to moderately wet. Cuba ranged from severely dry in east central areas to very wet in the west and to slightly wet on the eastern coastline. Northern Bahamas was normal to moderately dry and Belize was mostly normal ranging to moderately dry in the south and to extremely dry in the northeast.

During the 12-month period (April 2024 to March 2025), normal to moderately dry conditions prevailed across much of the region.

APR 2025 SPI (left) and 12-mth SPI APR 2024—MAR 2025 (right)





The month of April was relatively wetter than March across most of the region. A mixture of conditions prevails particularly over The Guianas.

Read more at <u>https://rcc.cimh.edu.bb/spi-monitor/</u>

AGRI-NEWS

Guyana: In response to heavy rainfall, which resulted in severe flooding in sections of Johanna and Yakusari, Minister of Agriculture, visited the affected communities in Black Bush Polder to engage with residents and farmers and to initiate immediate relief efforts. *Read more <u>https://</u>agriculture.gov.gu/2025/05/21/systems-in-place-to-alleviate-flooding-in-johanna-yakusari-min-mustapha/.*

ABOUT CariSAM

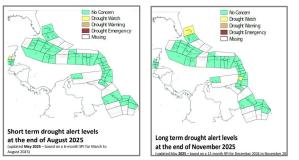
The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises, and more. Visit us at: www.carisam.cimh.edu.bb

REGIONAL OUTLOOKS

DROUGHT

Severe (or worse) short-term drought has developed in parts of the Northwest Bahamas. Severe (or worse) long term drought has developed in parts of the Northwest Bahamas, southwest Belize, northern Dominican Republic, southwest Jamaica, St-

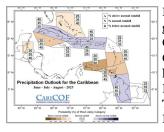
Barts, the north coast of Suriname, and northwest Trinidad.



There is some concern over short term drought that can impact small rivers, streams and ponds by the end of August 2025 across northwestern Belize.

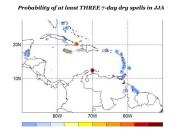
There is immediate concern for long-term drought, that can impact large reservoirs, large rivers or groundwater, to present a challenge in farming by the end of November 2025 across northwest Bahamas and St. Vincent. Interests in these territories should monitor their water resources.

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (JUN – AUG 2025)



Rainfall totals from June through August are likely to be usual or higher in Cuba, Guyana, Hispaniola and the US Caribbean Territories, but the usual or less in the ABC Islands, The Bahamas, Barbados, Belize, the Cayman Islands, Trinidad & Tobago and the Windward Islands.

The potential for flooding, flash floods and cascading impacts arising from runoff during intense rainfall events will be high, particularly in mountainous areas and in the Guianas. Soil moisture and recharge rates in water reservoirs will likely accelerate during frequent wet spells.

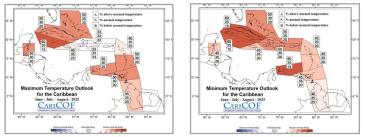




Moderate to high potential for the occurrence of at least three 7day dry spells across the ABC Islands and southeastern Cuba.

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Day-time (maximum) and night-time (minimum) temperatures will likely be the usual or higher. Spells of hazardous, extreme heat could ramp up into August in the ABC Islands, The Bahamas, Belize and the Greater Antilles. Wind exposed areas in the Lesser Antilles and the Guianas might be spared intense heatwaves until early-August.



Visit <u>http://rcc.cimh.edu.bb/climate-outlooks/</u> to access the latest climate outlooks.

CLIMATE-SMART ADVISORIES

Early hurricane season: Increase risk of flooding, soil saturation and flash floods, especially in mountainous areas and the Guianas:

- Stay informed with local weather updates and consider insurance for crops, livestock, and farm infrastructure.
- Ensure your farm emergency preparation plan is up to date.
- Clear and maintain drainage systems to prevent waterlogging.
- Utilized raised beds and establish contour on slopes to reduce erosion and runoff.
- Avoid fertilizing before heavy rain and monitor fields for pests and disease outbreak following wet conditions.
- Tag livestock to assist with recovery and move to higher ground in flood -prone areas.
- Store essential farm inputs (e.g. fertilizer, animal feed) above ground in sealed water-tight containers

Regions likely to experience Saharan dust, humid conditions, and heat stress:

- Stay hydrated and wear a dust mask during dust events, especially if you have respiratory conditions
- Schedule irrigation during cooler hours to reduce evaporation losses.
- Apply mulching to conserve soil moisture and regulate soil temperatures.
- Use biostimulants (e.g., Bio-Forge®) to support crop resilience to heat and drought stress.
- Ensure adequate water and shade for livestock and sensitive crops (e.g. via trees, shade nets or other structures)

Maintain records of inputs, crops, and livestock to aid postdisaster recovery

Please also keep updated and take into consideration your local weather and climate advisories.

Disclaimer

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